

PROPOSAL EVALUATION

Proposition 84 Integrated Regional Water Management (IRWM) Grant Program

Implementation Grant, Round 1, FY 2010-2011

Applicant	Bay Area Clean Water Agencies	Amount Requested	\$ 30,039,592
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Proposal Title	San Francisco Bay Area Regional Priority Projects and Programs	Total Proposal Cost	\$ 115,024,954
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PROPOSAL SUMMARY

The proposal consists of five projects: (1) Bay Area Regional Green Infrastructure Capacity Building Program, (2) Bay Area Regional Recycled Water Program, (3) Bay Area Regional Water Conservation Program, (4) Bay Area Wetland Ecosystem Restoration Program (5), and Integrated Water Quality Improvement, Flood Management and Ecosystem Restoration in Bay Area Disadvantaged Communities Project.

PROPOSAL SCORE

Criteria	Score/ Points Possible	Criteria	Score/ Points Possible
Work Plan	9/15	Economic Analysis – Water Supply Costs and Benefits	9/15
Budget	3/5	Water Quality and Other Expected Benefits	9/15
Schedule	3/5	Economic Analysis – Flood Damage Reduction	3/15
Monitoring, Assessment, and Performance Measures	5/5	Program Preferences	10/10
Total Score (max. possible = 85)			51

EVALUATION SUMMARY

The following is a review summary of the proposal.

Work Plan

The work plan criterion is not fully addressed, and documentation and rationale are insufficient. The proposal includes a thorough description of the projects, a description of the goals and objectives that will be met, regional project location maps, tasks within each project and listing of environmental documentation status. The proposal is consistent with the RWQCB Basin plan. The proposal contains a table of the synergies and linkages between projects, but the linkages are deemed poor and require additional documentation. Descriptions of permit and California Environmental Quality Act (CEQA) status are in many cases also poor or are completely missing. One project requesting funding is for a pipeline that will be built in phases. The project phase requesting funding is not explicitly stated by the applicant as a standalone project.

Budget

The project budgets contain detailed cost information, but not all costs appear reasonable and supporting documentation is lacking for a majority of the Budget categories. For example, cost estimates for projects using similar materials have very different estimates without any explanation (i.e. \$75/ft for 6" PVC in one project vs \$130/ft in another). Some costs are not supported and seemed excessive (i.e. \$520/ft for 12" PVC). Supporting documentation and logic for some costs are not provided. For example, Project 3 has a training program with a lump sum of \$500,000. How the cost is determined is not known (cost per individuals, number of individuals). Some projects have a budget for Construction/Implementation, but in the supporting discussion stated "The Program does not include construction activities". The Grant Administration table has a Non- State match of \$257,865, but the roll-up table has \$100,000.

Schedule

The schedule is not entirely consistent and reasonable. For example, some sub-projects (Hacienda Avenue "Green Street" Improvement Project, Napa Valley Rainwater Harvesting, and Central Dublin Recycled Water Distribution and Retrofit Project) are currently at 10% design; however according to the schedule, they will be at final design by June 2011. This time line does not seem reasonable. The schedule further illustrates that the bid and award process will be completed within 6-7 weeks which again does not seem realistic.

Monitoring, Assessment, and Performance Measures

The proposal fully addresses the criterion which is supported by thorough and well-presented documentation and logical rationale. The projects in the proposal are consistent with the RWQCB's Basin Plan. The proposed assessment program and performance measures will effectively determine if project objectives are met.

Economic Analysis – Water Supply Costs and Benefits

Above average levels of water supply benefits relative to costs might be realized through this proposal; however, the quality of the analysis is moderate and supporting documentation is partially substantiated. Four projects claim monetized water supply benefits of \$108.310 million (M). Two projects account for most of the benefits, the Project 2 (\$80.939 M), and Project 3 (\$24.671 M).

Project 2 includes ten separate subprojects that claim 3,210 acre feet (AF) of water supply benefit. From the project descriptions on page 7.1-3, some costs needed to realize the benefits may not be reported. While some projects note that "recycled water meters" and "customer retrofits" are included, others include just the cost for pipelines, storage, and/or treatment upgrades. Also, all variable cost per AF per year should be included unless the water must be treated to recycled water quality anyway (i.e., in the without-project condition). Operation and Maintenance costs which is not an insignificant portion of costs for traditional recycled water projects, are not included for most of the subprojects.

Four of ten projects located in North Marin, Napa and Solano Counties would offset the use of 1,490 AF of potable water. For these projects, it is assumed that a third of the cost of the Russian River Project could be avoided, amounting to \$46.175 M. This assumption is not well supported. This estimate is too large if 1) some of the costs of the Russian River Project are to be allocated to non-water supply benefits, or 2) the Russian River Project is not the marginal supply.

For the south bay and Marin Municipal Water District (MMWD), up to 1,710 AFY of other water supply would be avoided. The cost savings are calculated based on a value per AFY saved of \$1,500. Project 3 benefits are avoided water costs, up to 2,546 AFY also valued at \$1,500 per AFY. The monetized benefit for this project is

unsupported. The reviewer considered a variety of sources regarding water costs in the region and believes that \$1,500 per AFY is too large for the region. This value was not well documented, and therefore not supported. Costs of many new supplies and conservation are probably less than \$1,000 per AF per year. It is important that, for some time, water supply from these recycling projects would replace water in wetter years as well as drier years. In wetter years, the avoided cost is probably far less than \$1500 per AF per year, at least in the short run. The long run matters less because of discounting.

Economic Analysis – Water Quality and Other Expected Benefits

Above average levels of water quality benefits relative to costs might be realized through this proposal; however, the quality of the analysis is moderate and supporting documentation is partially substantiated. Project 4 accounts for most of the benefits (\$165.2 M). This project, with a cost of \$25.668 M, would “create or significantly restore” 2,300 acres of coastal wetlands, so benefits are \$72,462 per acre. The monetary benefits consist of habitat restoration (\$115 M), storm protection (\$21 M), recreation (\$16 M), commercial fisheries (\$10 M), and comparative cost of treatment (\$3 M). The \$115 M is based on a 1989 study that found that California households were willing to pay \$235 to \$268 per year to improve wetlands, applied to 6.6 million households in the region. The analysis assumes that this value can be apportioned based on the share of acres improved by the project to total acres of wetlands in the region.

Contingent valuation studies have well-known deficiencies that limit their applicability outside of the range of scenarios used to create them. In particular, this study is outdated. The willingness to pay of Californians should be limited to the least-cost way of obtaining the same result. That is, even if they were willing to pay the amounts as elicited from this study, they should only be willing to pay the cost of achieving the same benefit in the least-cost way. Acquisition and restoration of alternative lands in the area are likely to have costs similar to the costs of this project, not as much as the approximate \$72,000 per acre (\$166.66 M/2,300 acres) benefit claimed.

It is not clear why water quality benefits for receiving waters are not claimed for the Project 2; only fertilizer cost savings are claimed quantitatively. The short discussion top of page 8.1-6 is not sufficient to establish the potential magnitude of this benefit.

Economic Analysis – Flood Damage Reduction

Only low levels of benefits relative to costs can be realized through this proposal, as demonstrated by the analysis and supporting documentation. No projects claim monetized flood damage reduction benefits. Only 1 project (Project 5) claims flood damage reduction benefit.

Program Preferences

The Proposal demonstrates with a significant degree of certainty that the projects will collectively implement a number of Program Preferences including – to address issues related to critical water quality and water supply of disadvantaged communities. The proposal also demonstrates additional program preferences including: Include regional projects or programs, Effectively integrate water management programs and projects within hydrologic region, Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program, Effectively integrate water management with land use planning, Drought preparedness, Use and reuse water more efficiently, Climate change response actions, Expand environmental stewardship, Protect surface water and groundwater quality, and Ensure equitable distribution of benefits.